

32. (NEW) The nucleic acid molecule of Claim 31, wherein said mammalian cell is selected from the group consisting of a COS Cell, an HeLa cell, a VERO cell, a 3T3 cell, a CHO-K1 cell, a 32D cell, an SP2/0 cell, a J558L cell, an IMR 332 cell and a PC12 cell.

33. (NEW) The nucleic acid molecule of Claim 5, wherein said host cell is eukaryotic, and wherein said promoter is selected from the group consisting of a mouse metallothionein I promoter, the TK promoter of Herpes virus, the SV40 early promoter and the yeast gal4 promoter.

34. (NEW) The nucleic acid molecule of Claim 5, wherein said vector is pLXSN or pRK5.

REMARKS

APPLICANTS' ELECTIONS

Applicants hereby elect to prosecute, without traverse, the claims encompassed by Group I, claims 1-9, drawn to nucleotides encoding PTP05 or PTP10.

AMENDED AND ADDED CLAIMS

Claims 10-22 drawn to non-elected subject matter have been canceled without prejudice to or disclaimer of the subject matter contained therein. Applicants reserve the right to file one or more divisional, continuation, or continuation-in-part applications claiming the subject matter of the cancelled claims or any other subject matter disclosed in the application.

Following the amendments set forth herein, claims 2-7, 9, and 23-34 are pending. Applicants have included a copy of the pending claims as Appendix A, attached hereto, for the Examiner's convenient reference.

Claims 1, 8 and 10-22 have been canceled. Claim 2 has been amended to incorporate the subject matter of claim 1. Claims 3 and 5 have been amended to reflect a change in dependency from claim 1 to claim 2. Claims 23 and 24 have been added to claim the subject matter

heretofore found in claim 2. Claim 25 has been added to claim the subject matter heretofore found in claim 8.

New claims 26-34 have also been added, drawn to elected and disclosed subject matter. Support for the added claims can be found throughout the disclosure and claims as originally filed, as well as specifically as follows: claim 26 at page 15, lines 4-5; claim 27 at page 9, lines 8-12; claim 28 at page 34, lines 17-24; claim 29 at page 42, lines 23-27, and page 49, line 24, to page 50, line 15; claim 30 at page 43, lines 15-24; claims 31-32 at page 45, lines 1-10, and page 95, line 21; claim 33 at page 47, lines 1-19; and claim 34 at page 95, lines 4-5.

No new matter has been added by the amendments and the amendments are fully supported by the specification as filed.

In addition, Applicants have made some amendments to the specification, correcting certain obvious typographical errors.


CONCLUSION

Applicants believe that the claims are now in condition for allowance and a notice to that effect is respectfully requested. Applicants respectfully request that the Application be allowed and passed to issue. No fee is believed due in connection with this response. If this is incorrect, please charge Lyon & Lyon Deposit Account No. 12-2475 for the appropriate amount. Should the Examiner believe that a telephone interview would aid in the prosecution of this application, Applicants encourage the Examiner to call the undersigned collect at (858) 552-8400.

Respectfully submitted,

LYON & LYON, LLP

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Charles S. Berkman
Attorney for Applicants
Reg. No. 38,077

CSB:skt
633 West Fifth Street, 47th Floor
Los Angeles, CA 90071-2066
Tel: (858) 552-8400
Fax: (213) 955-0440



APPENDIX A
CURRENTLY PENDING CLAIMS

2. An isolated, enriched or purified nucleic acid molecule comprising a nucleotide sequence that
- (a) encodes a polypeptide having the full length amino acid sequence set forth in SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, or SEQ ID NO:8;
 - (b) is the complement of the nucleotide sequence of (a); or
 - (c) hybridizes under highly stringent conditions to the nucleotide molecule of (a) and encodes a naturally occurring PTP05 or PTP10 polypeptide
- wherein said highly stringent conditions are at least as stringent as 50% formamide, 5 x SSC (0.75 M NaCl, 0.075 M Sodium pyrophosphate, 5 x Denhardt's solution, sonicated salmon sperm DNA (50 g/mL), 0.1% SDS, and 10% dextran sulfate at 42 °C, with washes at 42 °C in 0.2 x SSC and 0.1% SDS.
3. The nucleic acid molecule of claim 2, wherein said nucleic acid molecule is isolated, enriched, or purified from a mammal.
4. The nucleic acid molecule of claim 3, wherein said mammal is a human.
5. The nucleic acid molecule of claim 2, further comprising a vector or promoter effective to initiate transcription in a host cell.
6. A nucleic acid probe for the detection of the nucleic acid molecule of any one of Claim 2, Claim 23 or Claim 24 in a sample.
7. The probe of claim 6 wherein said polypeptide comprises at least 6 contiguous amino acids of the amino acid sequence shown in SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, or SEQ ID NO:8.

8. A nucleic acid molecule comprising one or more regions that encode a PTP05 or a PTP10 polypeptide or a PTP05 or a PTP10 domain polypeptide, wherein said PTP05 or PTP10 polypeptide or said PTP05 or PTP10 domain polypeptide is fused to a non-PTP05 or non-PTP10 polypeptide.

9. A recombinant cell comprising a nucleic acid molecule encoding either the PTP05 or PTP10 polypeptide according to any one of Claim 2, Claim 23 or Claim 24 or PTP05 or PTP10 polypeptide according to Claim 2, Claim 23 or Claim 24 fused to a non-PTP05 or non-PTP10 polypeptide, wherein said nucleic acid molecule is inserted into said cell.

23. An isolated, enriched or purified nucleic acid molecule comprising a nucleotide sequence that

(a) encodes a polypeptide having an amino acid sequence that differs from the sequence set forth in SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, or SEQ ID NO:8 by that it lacks one or more, but not all, of the following segments of amino acid residues: 1-187, 188-420, 421-426 of SEQ ID NO:5, 44-80, 225-457, 458-463 of SEQ ID NO:6, or 1-87, 188-405, 406-412 of SEQ ID NO:7, respectively;

(b) is the complement of the nucleotide sequence of (a);

(c) encodes a polypeptide having the amino acid sequence set forth in SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, or SEQ ID NO:8 from amino acid residues 1-187, 188-420, 421-426 of SEQ ID NO:5, 44-80, 225-457, 458-463 of SEQ ID NO:6, or 1-87, 188-405, 406-412 of SEQ ID NO:7, respectively; or

(d) is the complement of the nucleotide sequence of (c).

24. An isolated, enriched or purified nucleic acid molecule comprising a nucleotide sequence that

(a) encodes a polypeptide having an amino acid sequence that differs from the amino acid sequence set forth in SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, or SEQ ID NO:8 by lacking at least one, but not more than two, of the domains selected from the group consisting of a N-terminal domain, a catalytic domain, and a C-terminal domain; or

(b) is the complement of the nucleotide sequence of (a).

25. The nucleic acid molecule of any one of Claim 2, Claim 23 or Claim 24, further comprising a nucleotide sequence that encodes a non-PTP05 or a non-PTP10 polypeptide, wherein said non-PTP05 or non-PTP10 polypeptide is fused to a polypeptide molecule whose amino acid sequence is set forth in SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, or SEQ ID NO:8.

26. The nucleic acid molecule of any one of Claim 2, Claim 23 or Claim 24, wherein said nucleic acid molecule encodes a GST-fusion protein.

27. An isolated, enriched or purified nucleic acid molecule comprising a nucleotide sequence set forth in SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, or SEQ ID NO:4.

28. The nucleic acid molecule of any one of Claim 2, Claim 23 or Claim 24, further comprising restriction endonuclease recognition sites at the 5' end and/or 3' end, so that the nucleic acid molecule is manipulable to contain functional alterations of the nucleic acid sequence that afford an opportunity to promote secretion and/or processing of heterologous proteins encoded therefrom.

29. The nucleic acid molecule of Claim 5, wherein said vector is selected from the group consisting of pBR322, pUC118, pUC119, ColE1, pSC101, pACYC 184, pVX, pC194, pC221, pT127, p1J101, BPV, vaccinia, SV40, 2-micron circle, λ gt10, λ gt11, fC31, pMAM-neo and pKRC.

30. The nucleic acid molecule of Claim 5, wherein said promoter is selected from the group consisting of the int promoter of bacteriophage λ , the bla promoter of the β -lactamase gene sequence of pBR322, the CAT promoter of the chloramphenicol acetyl transferase gene sequence of pBR325, the major right or left promoters of bacteriophage λ , the trp, recA, lacZ, lacI or gal promoters of E. coli and the α -amylase or sigma-28 specific promoters of B. subtilis.

31. The nucleic acid molecule of Claim 5, wherein said host cell is a yeast cell, a fungi cell, an insect cell, a plant cell or a mammalian cell, wherein said mammalian cell either *in vivo* or in tissue culture.
32. The nucleic acid molecule of Claim 31, wherein said mammalian cell is selected from the group consisting of a COS Cell, an HeLa cell, a VERO cell, a 3T3 cell, a CHO-K1 cell, a 32D cell, an SP2/0 cell, a J558L cell, an IMR 332 cell and a PC12 cell.
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34. The nucleic acid molecule of Claim 5, wherein said vector is pLXSN or pRK5.